Design Procedure Checklist

Engineer _____ Project _____

Description _____

City/County _____

Maps:

USGS Quad Scale Date

Flood Hazard Delineation (Quad.)

Flood Plain Delineation (HUD)

Flood Insurance Firm & FHBM

Local Land Use

Soils Map

Geologic Maps

Aerial Photos Scale Date

STUDIES BY EXTERNAL AGENCIES:

USACE Flood Plain Inform. Report

NRCS Watershed Studies PFP-HYDRO

Local Watershed Management

USGS Gages & Studies

Interim Flood Plain Studies

Water Resources Data

Regional Planning Data

Forestry Service

FEMA Flood Insurance Studies

STUDIES BY INTERNAL SOURCES:

Hydraulics Section Records

Flood Record (High Water, Newspaper)

Bridge Inspection Reports

CALIBRATION OF HIGH-WATER DATA:

Discharge and Frequency of H.W. el.

Influences Responsible for H.W. el.

Analyze Hydraulic Performance of Existing Facilityfor 100-Year Flood

Analyze Hydraulic Performance of Proposed Facility for 100-Year Flood

(Recon. Revisions) Report

DESIGN APPURTENANCES:

Dissipators, ***Rip Rap***

Scour Analysis/Evaluation

Utility Company Plans

TECHNICAL RESOURCES:

Indiana Design Manual, Part IV

DESIGN PROCEDURE CHECKLIST

Figure 32-7A

Technical Library

DISCHARGE CALCULATIONS:

Drainage Areas

Formula

HEC-1/***TR-20***

NRCS

Gaging Data - Regional Analysis

Regression Equations

Area-Discharge Curves

Log-Pearson Type III Gage Rating

HIGH-WATER ELEVATIONS:

INDOT Survey

External Sources

Personal Reconnaissance

FLOOD HISTORY:

Erosion & Sediment Control

External Sources

Personal Reconnaissance

Maintenance Records

DATA REPORTS:

INDOT Data

ENVIRONMENTAL REPORTS:

INDOT

TECHNICAL AIDS:

Indiana Design Manual, Part IV

INDOT & FHWA Directives

Technical Library

COMPUTER PROGRAMS:

HY8, CDS

Direct Step Water Surface Profile

USACE HEC-2 Water Surface Profile

FHWA Bridge Backwater

Log-Pearson Type III Analysis

WSPRO ***Water Surface Profile***

PFP-HYDRA

FESWMS

HEC-1/TR 20

HY-9 Scour Analysis

USACE HEC-RAS River Analysis System
BRISTARS

DESIGN PROCEDURE CHECKLIST

Figure 32-7A (Continued)